

## DOUBLE-LUMEN CATHETER

### ABSTRACT OF THE DISCLOSURE

A catheter is described. In one embodiment, the catheter includes: a shaft segment, the shaft segment including a proximal end of the catheter and a shaft segment central axis, the shaft segment further including a shaft segment uptake lumen and a shaft segment return lumen; a distal end segment coupled to the shaft segment, the distal end segment including a distal end of the catheter and a distal end segment central axis, the distal end segment further including a distal end segment uptake lumen and a distal end segment return lumen, where the distal end segment uptake and return lumens are coupled to the shaft segment uptake and return lumens, respectively; where the distal end segment central axis forms a non-zero angle with the shaft segment central axis when the catheter is in its unstressed configuration. In a second embodiment, the catheter includes: a shaft segment, the shaft segment including a proximal end of the catheter and a shaft segment central axis; a distal end segment coupled to the shaft segment, the distal end segment including a distal end of the catheter and a distal end segment central axis; where the distal end segment central axis is parallel to the shaft segment central axis when the catheter is in its unstressed configuration, further where the distal end segment includes a return lumen and an uptake lumen having a return lumen distal end and an uptake lumen distal end, respectively, further where the uptake lumen distal end is terminated by a closed surface, further where the uptake lumen distal segment includes only one side hole. In a third embodiment, the catheter includes: an uptake lumen including an uptake lumen shaft segment and an uptake lumen distal segment with an uptake lumen distal end; a return lumen including a return lumen shaft segment and a return lumen distal segment with a return lumen distal end; where the uptake lumen shaft segment is substantially parallel to the return lumen shaft segment, further where at least a portion of the return lumen distal segment is helically coiled around the uptake lumen distal end.